

Rec'd PCT/PTO 21 JUN 2005

002/003

DOCKET NO. 3194.1025-009 (Mykrolis Ref.: 200300127)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Declaration for Patent Application

[] Supplemental (37 C.F.R. §1.67)

As a named inventor, I hereby declare that:

My residence, mailing address and citizenship are as stated next to my name;

I believe I am the original, first and sole inventor (if only one name is listed) or an original, first and joint inventor (if plural names are listed in the signatory page(s) commencing at page 2 hereof) of the subject matter which is claimed and for which a patent is sought on the invention entitled

METHOD FOR PURIFYING CARBON DIOXIDE

the specification of which (check one)

- [] is attached hereto.
- [] was filed on [] as United States Application Number [].
- [X] was filed on October 16, 2003 as PCT International Application No. PCT/US03/33006 and assigned United States Application No. 10/531,512.
- [X] and was amended on April 15, 2005 (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 35 U.S.C. 102(b) and 35 U.S.C. 103, and I declare that I have disclosed all such information in the application, including the information disclosed in the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby expressly authorize the filing of an International Patent Application under the Patent Cooperation Treaty which corresponds to and claims the priority of the above-identified application.

I hereby claim foreign priority benefits under 35 U.S.C. 119 or 365 of any foreign application (other than the United States of America, listed below and have also identified below by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed).

| (Number) | (Country) | (Day/Month/Year filed) | Prior Foreign Application(s) | Priority Not Claimed | Certified Copy Filed? |
|----------|-----------|------------------------|------------------------------|----------------------|-----------------------|
| | | | | [] | YES NO |
| (Number) | (Country) | (Day/Month/Year filed) | | [] | [] [] |
| (Number) | (Country) | (Day/Month/Year filed) | | [] | [] [] |
| (Number) | (Country) | (Day/Month/Year filed) | | [] | [] [] |

BEST AVAILABLE COPY

-2-

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

1-00

| | | | | | | | |
|--|--|-------|--|-------------------------------|--|-------------|--|
| Full name of sole or first inventor | | | | Daniel Alvarcz, Jr. | | | |
| Inventor's Signature | | | | <i>Daniel Alvarcz Jr</i> | | | |
| Residence: City | | State | | Country | | Citizenship | |
| San Diego | | CA CA | | US | | USA | |
| Mailing Address (Business or Residential) | | | | | | | |
| Street or P.O. Box | | | | 10208 Black Mountain Road, #1 | | | |
| City | | State | | ZIP | | Country | |
| San Diego | | CA | | 92126 | | US | |
| Full name of second joint inventor, if any | | | | Jeffrey J. Spiegelman | | | |
| Inventor's Signature | | | | | | | |
| Residence: City | | State | | Country | | Citizenship | |
| San Diego | | CA | | US | | USA | |
| Mailing Address (Business or Residential) | | | | | | | |
| Street or P.O. Box | | | | 5239 Meadows Del Mar | | | |
| City | | State | | ZIP | | Country | |
| San Diego | | CA | | 92130 | | US | |
| Full name of third joint inventor, if any | | | | Russell J. Holmes | | | |
| Inventor's Signature | | | | | | | |
| Residence: City | | State | | Country | | Citizenship | |
| Santee | | CA | | US | | USA | |
| Mailing Address (Business or Residential) | | | | | | | |
| Street or P.O. Box | | | | 8437 Rutson Drive | | | |
| City | | State | | ZIP | | Country | |
| Santee | | CA | | 92071 | | US | |

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BEST AVAILABLE COPY

DOCKET NO. 3194.1025-005 (Sykrolis Ref.: 200300127)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Declaration for Patent Application

[] Supplemental (37 C.F.R. §1.67)

As a named inventor, I hereby declare that:

My residence, mailing address and citizenship are as stated next to my name;

I believe I am the original, first and sole inventor (if only one name is listed) or an original, first and joint inventor (if plural names are listed in the signatory page(s) commencing at page 2 hereof) of the subject matter which is claimed and for which a patent is sought on the invention entitled

✓ METHOD FOR PURIFYING CARBON DIOXIDE

the specification of which (check one)

[] is attached hereto.

[] was filed on [] as United States Application Number [].

[X] was filed on October 16, 2003 as PCT International Application No. PCT/US03/33006 and assigned United States Application No. 10/531,512.

[X] and was amended on April 15, 2005 (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. §1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby expressly authorize the filing of an International Patent Application under the Patent Cooperation Treaty which corresponds to and claims the priority of the above-identified application.

I hereby claim foreign priority benefits under 35 U.S.C. 119 or 365 of any foreign application(s) for patent or inventor's certificate, or of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed:

| <u>Prior Foreign Application(s)</u> | | | Priority Not Claimed | Certified Copy Filed? | |
|-------------------------------------|-----------|------------------------|----------------------------|--------------------------|-----|
| (Number) | (Country) | (Day/Month/Year filed) | | YES | NO |
| _____ | _____ | _____ | [] | [] | [] |
| _____ | _____ | _____ | [] | [] | [] |
| _____ | _____ | _____ | [] | [] | [] |

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor Daniel Alvarez, Jr.

Inventor's Signature _____

| Residence: City | State | Country | Citizenship |
|-----------------|-------|---------|-------------|
| San Diego | CA | US | USA |

Mailing Address (Business or Residential)
Street or P.O. Box 10908 Black Mountain Road, #1

| City | State | ZIP | Country |
|-----------|-------|-------|---------|
| San Diego | CA | 92126 | US |

2-00 Full name of second joint inventor, if any Jeffrey J. Spiegelman

Inventor's Signature _____

| Residence: City | State | Country | Citizenship |
|-----------------|-------|---------|-------------|
| San Diego | CA CA | US | USA |

Mailing Address (Business or Residential)
Street or P.O. Box 5289 Meadows Del Mar

| City | State | ZIP | Country |
|-----------|-------|-------|---------|
| San Diego | CA | 92130 | US |

Full name of third joint inventor, if any Russell J. Holmes

Inventor's Signature _____

| Residence: City | State | Country | Citizenship |
|-----------------|-------|---------|-------------|
| Santee | CA | US | USA |

Mailing Address (Business or Residential)
Street or P.O. Box 8437 Rumson Drive

| City | State | ZIP | Country |
|--------|-------|-------|---------|
| Santee | CA | 92071 | US |

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Declaration for Patent Application

[] Supplemental (37 C.F.R. §1.67)

As a named inventor, I hereby declare that:

My residence, mailing address and citizenship are as stated next to my name;

I believe I am the original, first and sole inventor (if only one name is listed) or an original, first and joint inventor (if plural names are listed in the signatory page(s) commencing at page 2 hereof) of the subject matter which is claimed and for which a patent is sought on the invention entitled

METHOD FOR PURIFYING CARBON DIOXIDE

the specification of which (check one)

[] is attached hereto.

[] was filed on [] as United States Application Number [].

[X] was filed on October 16, 2003 as PCT International Application No. PCT/US03/33006 and assigned United States Application No. 10/531,512.

[X] and was amended on April 15, 2005 (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. §1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby expressly authorize the filing of an International Patent Application under the Patent Cooperation Treaty which corresponds to and claims the priority of the above-identified application.

I hereby claim foreign priority benefits under 35 U.S.C. 119 or 365 of any foreign application(s) for patent or inventor's certificate, or of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed:

| <u>Prior Foreign Application(s)</u> | | | Priority Not Claimed | Certified Copy Filed? YES NO | |
|-------------------------------------|-----------|------------------------|----------------------------|------------------------------------|-----|
| (Number) | (Country) | (Day/Month/Year filed) | [] | [] | [] |
| (Number) | (Country) | (Day/Month/Year filed) | [] | [] | [] |
| (Number) | (Country) | (Day/Month/Year filed) | [] | [] | [] |

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

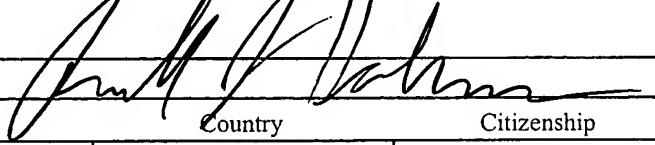
| | | | |
|--|-------|---------|-------------|
| Full name of sole or first inventor <u>Daniel Alvarez, Jr.</u> | | | |
| Inventor's Signature _____ | | | |
| Residence: City | State | Country | Citizenship |
| San Diego | CA | US | USA |

| | | | |
|---|-------|-------|---------|
| Mailing Address (Business or Residential) | | | |
| Street or P.O. Box <u>10908 Black Mountain Road, #1</u> | | | |
| City | State | ZIP | Country |
| San Diego | CA | 92126 | US |

| | | | |
|---|-------|---------|-------------|
| Full name of second joint inventor, if any <u>Jeffrey J. Spiegelman</u> | | | |
| Inventor's Signature _____ | | | |
| Residence: City | State | Country | Citizenship |
| San Diego | CA | US | USA |

| | | | |
|--|-------|-------|---------|
| Mailing Address (Business or Residential) | | | |
| Street or P.O. Box <u>5289 Meadows Del Mar</u> | | | |
| City | State | ZIP | Country |
| San Diego | CA | 92130 | US |

3-00

| | | | |
|---|-------|---------|-------------|
| Full name of third joint inventor, if any <u>Russell J. Holmes</u> | | | |
| Inventor's Signature  | | | |
| Residence: City | State | Country | Citizenship |
| Santee | CA CA | US | USA |

| | | | |
|---|-------|-------|---------|
| Mailing Address (Business or Residential) | | | |
| Street or P.O. Box <u>8437 Rumson Drive</u> | | | |
| City | State | ZIP | Country |
| Santee | CA | 92071 | US |

STATEMENT UNDER 37 C.F.R. § 3.73(b)

Inventor(s): Daniel Alvarez, Jr., Jeffrey J. Spiegelman and Russell J. Holmes

Application No./Patent No.: 10/531,512 Filed/Issue Date: IA filing date: 10/16/03

For: METHOD FOR PURIFYING CARBON DIOXIDE

Mykrolis Corporation, a corporation
(Name of Assignee) Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is

- A. ☒ the assignee of the entire right, title and interest in the patent application identified above; or
- B. ☐ an assignee together with ☐ of the entire right, title and interest in the patent application identified above.

The right, title and interest of the above-named assignee in the patent application identified above is established by virtue of:

- A. ☒ An assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel ☐, Frame ☐, or a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s) of the patent application identified above, to the current assignee as shown below:

1. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or a copy thereof is attached.
2. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or a copy thereof is attached.
3. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or a copy thereof is attached.

- ☐ Additional documents in the chain of title are listed on a supplemental sheet.

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Signature Peter W. Walcott

Name: Peter W. Walcott

Title: Vice President, General Counsel, Secretary

Date: May 31, 2005

COPY

Rec'd PCT/PTO 21 JUN 2005

Docket No. 3194.1025-009 (Mykrolis Ref. No.: 200300127)

Joint

ASSIGNMENT

WHEREAS, we, **Daniel Alvarez, Jr., Jeffrey J. Spiegelman and Russell J. Holmes**, have invented a certain improvement in **METHOD FOR PURIFYING CARBON DIOXIDE** described in an application for Patent,

- ☐ the specification of which is about to be filed in the United States Patent Office *(use for utility (37 CFR § 1.53(b)) and design filings only)*;
- ☐ is about to be filed in the United States Patent Office as a Provisional Application;
- ☐ the specification of which is United States Application No. [], filed [];
- ☒ the specification of which is a Patent Cooperation Treaty Application, International Application No. **PCT/US03/33006**, filed **October 16, 2003**, which designates the United States of America and assigned United States Application No. 10/531,512;
- ☐ which was patented under United States Patent No. [].

WHEREAS, **Mykrolis Corporation** (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the **State of Delaware**, and having a usual place of business at **129 Concord Road, Billerica, Massachusetts 01821** desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue on said invention; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein; I hereby expressly authorize the filing of an International Patent Application under the Patent Cooperation Treaty which corresponds to and claims the priority of the above-identified application;

Docket No. 3194.1025-009 (Mykrolis Ref. No.: 200300127)

AND, we hereby further agree for ourselves and our executors and administrators to . execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of any future applications including substitution, reissue, divisional or continuation applications, and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request each Patent Office and the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said invention to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor's Signature:

Daniel Alvarez, Jr.
Daniel Alvarez, Jr.

State/Commonwealth

of California

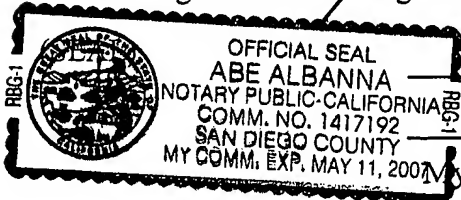
County of San Diego

On this 7th day of June, 2005, before me, the undersigned notary public, personally appeared **Daniel Alvarez, Jr.**,

☐ personally known to me, or

☒ proved to me through satisfactory evidence of identification, which was
CAN # N8465933

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.



Abe Albanna Notary Public
Abe Albanna (print name)
Commission expires 05/11/2007

Docket No. 3194.1025-009 (Mykrolis Ref. No.: 200300127)

Inventor's Signature: _____

Jeffrey J. Spiegelman

State/Commonwealth

of _____

County of _____

On this _____ day of _____, 20____, before me, the undersigned notary public, personally appeared **Jeffrey J. Spiegelman**,

☐ personally known to me, or

☐ proved to me through satisfactory evidence of identification, which was _____

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public

(print name)

My Commission expires ____/____/____

Inventor's Signature: _____

Russell J. Holmes

State/Commonwealth

of California

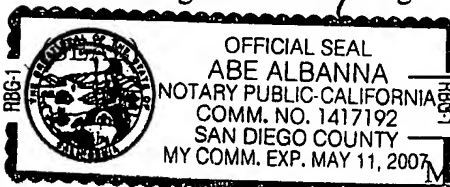
County of San Diego

On this 31 day of May, 2005, before me, the undersigned notary public, personally appeared **Russell J. Holmes**,

☐ personally known to me, or

☒ proved to me through satisfactory evidence of identification, which was CADC # A6440209

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.



abe albanna Notary Public

Abe Albanna (print name)

My Commission expires 05/11/2007

COPY

Docket No. 3194.1025-009 (Mykrolis Ref. No.: 200300127)

JointASSIGNMENT

WHEREAS, we, **Daniel Alvarez, Jr., Jeffrey J. Spiegelman and Russell J. Holmes**, have invented a certain improvement in **METHOD FOR PURIFYING CARBON DIOXIDE** described in an application for Patent,

- ☐ the specification of which is about to be filed in the United States Patent Office (*use for utility (37 CFR § 1.53(b)) and design filings only*);
- ☐ is about to be filed in the United States Patent Office as a Provisional Application;
- ☐ the specification of which is United States Application No. [], filed [];
- ☒ the specification of which is a Patent Cooperation Treaty Application, International Application No. **PCT/US03/33006**, filed **October 16, 2003**, which designates the United States of America and assigned United States Application No. 10/531,512;
- ☐ which was patented under United States Patent No. [].

WHEREAS, **Mykrolis Corporation** (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the **State of Delaware**, and having a usual place of business at **129 Concord Road, Billerica, Massachusetts 01821** desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue on said invention; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein; I hereby expressly authorize the filing of an International Patent Application under the Patent Cooperation Treaty which corresponds to and claims the priority of the above-identified application;

Docket No. 3194.1025-009 (Mykrolis Ref. No.: 200300127)

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of any future applications including substitution, reissue, divisional or continuation applications, and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request each Patent Office and the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said invention to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor's Signature: _____

Daniel Alvarez, Jr.

State/Commonwealth _____

of _____

County of _____

On this _____ day of _____, 20____, before me, the undersigned notary public, personally appeared **Daniel Alvarez, Jr.**,

☐ personally known to me, or

☐ proved to me through satisfactory evidence of identification, which was _____

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public

(print name)

My Commission expires ____/____/____

Docket No. 3194.1025-009 (Mykrolis Ref. No.: 200300127)

Inventor's Signature: _____

Jeffrey J. Spiegelman

State/Commonwealth

of California

County of San Diego

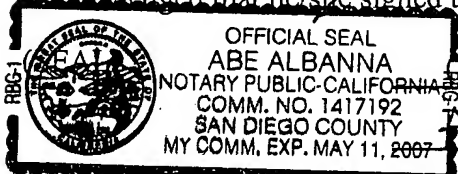
On this 31 day of May, 2005, before me, the undersigned notary public, personally appeared **Jeffrey J. Spiegelman**,

☐ personally known to me, or

☒ proved to me through satisfactory evidence of identification, which was

CAC # N2420395

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.



Abe albanna

Notary Public

Abe Albanna

(print name)

My Commission expires 05/11/2007

Inventor's Signature: _____

Russell J. Holmes

State/Commonwealth

of _____

County of _____

On this _____ day of _____, 20____, before me, the undersigned notary public, personally appeared **Russell J. Holmes**,

☐ personally known to me, or

☐ proved to me through satisfactory evidence of identification, which was

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public

(print name)

My Commission expires ____/____/____